ABSTRACT OF THE DISCLOSURE

A method and apparatus for shaping force signals for a force feedback device. A source wave is provided and is defined by a set of control parameters (including a steady state magnitude, a frequency value and a duration value) and modified by a set of impulse parameters (including an impulse magnitude, and a settle time representing a time required for the impulse magnitude to change to the steady-state magnitude). Optionally, application parameters specifying a direction of force signal and trigger parameters specifying activating buttons can also be provided for the source wave. Using a host processor or a local processor, the force signal is formed from the source wave and the sets of control parameters and impulse parameters, where the force signal includes an impulse signal followed by a continual steady-state signal after an expiration of the settle time. A feel sensation is generated to a user of the force feedback device as physical forces produced by actuators on the force feedback device in response to the force signal. The steady-state magnitude value is lower than a magnitude value of a non-impulse-shaped force signal required to create a corresponding feel sensation having a similar apparent sensation to the user.

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